

## CLAIMS

What is claimed is:

1. An interface system for interactively building rules and constraints, comprising:
  - an output display configured for showing to a user a partial complete rule with a current rule fragment, such rule fragment comprising a blank space;
  - said output display further configured for showing to a user a list of potential selections for filling said blank space in said current rule fragment;
  - said output display further configured for showing to a user a completed rule; and
  - at least one input device configured for allowing a user to choose from said list a desired selection for filling said blank space and for allowing a user to directly enter values to create a selection for filling said blank space, thereby creating a completed rule.
2. The interface system of claim 1, further comprising a processing element configured for converting a completed rule into an internal representation suitable for inputting into a resource scheduling system.
3. The interface system of claim 2, comprising a processing element configured for assigning said completed rule to at least one person in a resource schedule.
4. The interface system of claim 3, wherein said resource schedule is a call center schedule and said at least one person is a call center agent.

- 1           5.    The interface system of claim 1, comprising an input  
2                device configured for allowing a user to assign a  
3                tolerance to said completed rule, whereby said  
4                completed rule is made self-referential.
- 1           6.    The interface system of claim 5, wherein said  
2                completed self-referential rule refers to a goal  
3                that is unspecified in an absolute sense.
- 1           7.    The interface system of claim 5, wherein said  
2                completed self-referential rule refers to a  
3                schedule that does not yet exist.
- 1           8.    The interface system of claim 1, comprising a  
2                processing element configured to apply branching rules  
3                to previous selections of a user for filling said blank  
4                space, thereby interactively and dynamically creating  
5                future blank spaces and future lists of said potential  
6                selections.
- 1           9.    The interface system of claim 8, including a  
2                processing element configured to access a dynamic  
3                database, thereby to populate said lists of  
4                potential selections depending on the current  
5                value in real time of said dynamic database.
- 1           10.   The interface system of claim 1, wherein said completed  
2                rule is easily parsed by a human user.
- 1           11.   A computer-implemented method of building rules and  
2                constraints for a resource scheduling system, comprising:  
3                displaying to a user a current rule fragment, such  
4                rule fragment comprising a blank space;  
5                filling said blank space with a value selected by  
6                said user, thereby creating a completed rule; and

7 displaying said completed rule to said user.

1 12. The method of claim 11, wherein said user fills said  
2 blank space by choosing from a list of potential  
3 selections, said potential selections being displayed  
4 to said user.

1 13. The method of claim 11, wherein said user fills said  
2 blank space by direct entry of said value.

1 14. The method of claim 11, further comprising converting a  
2 completed rule into an internal representation and  
3 inputting said internal representation into a resource  
4 scheduling system.

5 15. The method of claim 14, comprising assigning said  
6 completed rule to at least one person in a  
7 resource schedule.

8 16. The method of claim 15, wherein said resource  
9 schedule is a call center schedule and said  
10 at least one person is a call center agent.

1 17. The method of claim 11, further comprising assigning a  
2 tolerance to said completed rule, whereby said  
3 completed rule is made self-referential.

1 18. The method of claim 17, wherein said completed  
2 self-referential rule refers to a goal that is  
3 unspecified in an absolute sense.

1 19. The method of claim 18, wherein said  
2 completed self-referential rule refers to a  
3 schedule that does not yet exist.

1 20. The method of claim 11, further comprising applying  
2 branching rules to previous selections of a user for

filling said blank space, thereby interactively and dynamically creating future blank spaces and future lists of said potential selections.

21. The method of claim 20, further comprising accessing a dynamic database, thereby populating said lists of potential selections in accordance with the current value in real time of said dynamic database.

22. The method of claim 11, wherein said completed rule is easily parsed by a human user.

23. A resource scheduling system for a call center schedule, comprising:

an interface system for interactively building rules and constraints, said interface system including:

an output display configured for showing to a user a current rule fragment, such rule fragment comprising a blank space;

said output display further configured for showing to a user a list of potential selections for filling said blank space in said current rule fragment;

said output display further configured for showing to a user a completed rule; and

at least one input device configured for allowing a user to choose from said list a desired selection for filling said blank space and for allowing a user to directly enter values to create a selection for filling said blank space, thereby creating a completed rule.

24. The resource scheduling system of claim 23, comprising a processing element configured for assigning said completed rule to at least one call center agent.

1 25. The resource scheduling system of claim 23, comprising  
2 an input device configured for allowing a user to  
3 assign a tolerance to said completed rule, whereby said  
4 completed rule is made self-referential.

1 26. The resource scheduling system of claim 25,  
2 wherein said completed self-referential rule  
3 refers to a goal that is unspecified in an  
4 absolute sense.

1 27. The resource scheduling system of claim 25,  
2 wherein said completed self-referential rule  
3 refers to a schedule that does not yet exist.

1 28. The resource scheduling system of claim 23, comprising  
2 a processing element configured to apply branching  
3 rules to previous selections of a user for filling said  
4 blank space, thereby interactively and dynamically  
5 creating future blank spaces and future lists of said  
6 potential selections.

1 29. The resource scheduling system of claim 28,  
2 including a processing element configured to  
3 access a dynamic database, thereby to populate  
4 said lists of potential selections depending on  
5 the current value in real time of said dynamic  
6 database.

1 30. The resource scheduling system of claim 23, wherein  
2 said completed rule is easily parsed by a human user.